REMARKS

Claim 1 submitted in the RCE recites the following:

> A method for producing a preview image for printing an input digital image at different print formats, comprising:
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> determining a first printable image portion in the input digital image for a first print format having a first aspect ratio, wherein the input digital image has an image width and image height, wherein the first printable portion has a first printable image height substantially the same as the image height and has a first printable image width different from the image width;
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> determining a second printable image portion in the input digital image for a second print format having a second aspect ratio different from the first aspect ratio, wherein the second printable portion has a second printable image width substantially the same as the image width and has a second printable image height different from the image height; and
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> displaying a common printable image portion of the input digital image based on the first printable image portion and the second printable image portion, wherein the common printable image portion is suitable for printing the input digital image in the first print format or the second print format.

The Office Action mailed 8/6/2008 used identical arguments to reject independent claims 1, 12, and 26 under Section 103 as those described in the previous 3/6/2008 Office Action. The Office Action includes the following statement (page 5, lines 7 to 13) regarding the additional amended elements submitted with the RCE:

> **"Applicant has not disclosed** that the input digital image has an image width and image height, wherein the first printable portion has a first printable image height substantially the same as the image height and has a first printable image width different from the image width and the second printable portion has a second printable image width substantially the same as the image width and has a second printable image height different from the image height **provides an advantage, it is used for a particular purpose or solves a stated problem**."

Applicant respectfully disagrees.

The amended claim limitations in claims 1, 12, and 26 are **clearly disclosed** in Figures 2-5, and from the second paragraph on page 6 to the third paragraph of page 8 of the present application.

The purpose and problem are clearly stated in the second and fourth paragraphs on page 6, as follows:

> "The user can order prints of different print formats to be made using the digital image by the photo-finishing service provider in step 130 of FIG. 1. Typical print formats include 3.5"x5", 4"x6", 5"x7", 8"x10", 11"x14" and so on. The print formats possess different aspect ratios (e.g. 10:7, 6:4, 7:5, 10:8, 14:11, etc.), which may be different from the aspect ratio of 4:3 of the input digital image 210 in FIG. 2.
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> As previously described, a problem in the digital photo printing industry is the undesired image content loss in printing digital images. For a selected print format, any portion of the input image with the same aspect ratio as that of the selected print format is a printable image portion. The maximum printable image portion is a printable image portion with the most possible information of the input image. Any portion of the input image outside the maximum printable image portion is the un-printable image portion.
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> For example, to produce an 8"x10" image print, a digital image having an aspect ratio of 1.25 (10:8) is required. The maximum printable image portion 220 for an 8"x10" print format is determined in step 140 as illustrated in FIG. 2. While the maximum printable image portion 220 has the same height of 1500 pixel as the input digital image 210, the width of the maximum printable image portion 220 is 1875 pixels, shorter than the width of the input digital image 210. As a result, a portion 230 of the input digital image 210 is unprintable on an 8"x10" print. In other words, the unprintable portion 230 needs to be cropped off of the input digital image 210 in preparing for an 8"x10" print. If the whole input digital image 210 is displayed in a print preview to the user, the user may be unpleasantly surprised by the unexpected image loss after he or she receives the 8"x10" print."

As described, the problem arises from the difference aspect ratios between the input image and printing formats. Some portion of an image viewable at a user interface on a computer display may not be printable, which may cause a user to be "unpleasantly surprised". Additional difficulty (that is not appreciated in the cited references) is due to the fact that different printing formats also have different aspect ratios. A solution needs to address not only the problem of unprintable image portion for one print format, but also for multiple print formats (e.g. 3.5"x5", 4"x6", 5"x7", 8"x10", 11"x14" with respective aspect ratios of "10:7, 6:4, 7:5, 10:8, 14:11").

The **advantages** of the invention concepts have been thoroughly discussed in multiple sections of the present application. For example, the third paragraph on page 3 clearly states:

In one aspect, the present invention solves a long felt need in the digital photo-finishing field: portion of the image content viewable in an image preview is often lost when the image is reproduced on an images print. The present invention provides an improved system and methods for previewing digital images of different aspect ratios and printing the digital images at different print formats (i.e. "safe cropping"). **The present invention allows all the image content viewable to the user in a preview of the digital image to be printed on an image receiver, independent of the format of the image prints. No image content is lost from previewing to printing**.

Regarding the amended elements in claim 1, Figure 2 shows: the input digital image (210) has an image width and image height, wherein the first printable portion (220) has a first printable image height substantially the same as the image height (210 and 220 has the same height) and has a first printable image width different from the image width (210 and 220 have different widths).

Figure 3 shows: the input digital image (310) has an image width and image height, wherein the second printable portion (320) has a second printable image width substantially the same as the image width (310 and 320 has the same width) and has a second printable image height different from the image height (310 and 320 have different heights).

Figure 5 shows the common printable image portion (520) of the input digital image based on the first printable image portion (520 plus 540) and the second printable image portion (520 plus 530). Figure 4 shows other variations of the common printable image portion (410, 420, 430, 440, 450, 460).

Kuchta does not disclose detailed relationship between the printable portions and the input digital image along the width and the height dimensions. Kuchta does not teach the elements of "determining a first printable image portion in the input digital image for a first print format having a first aspect ratio, wherein the input digital image has an image width and image height, wherein the first printable portion has a first printable image height substantially the same as the image height and has a first printable image width different from the image width" and "determining a second printable image portion in the input digital image for a second print format having a second aspect ratio different from the first aspect ratio, wherein the second printable portion has a second printable image width substantially

the same as the image width and has a second printable image height different from the image height" in the amended claim 1.

Iwata shows (Figure 39) printable areas for different printers. No relationship is shown between the printable areas and an input digital image. Rather, Iwata shows printable areas positioned in the middle of a printing substrate, without touching any portion of the physical boundary of a printing substrate.

Iwata does not teach "the first printable portion has a first printable image height substantially the same as the image height and has a first printable image width different from the image width". Iwata also does not include "the second printable portion has a second printable image width substantially the same as the image width and has a second printable image height different from the image height" in the amended claim 1.

In sum, at least one element in claim 1 is missing in Kuchta and Iwata. Kuchta and Iwata cannot be combined to produce the methods recited in the amended claim 1 and its dependent claims 2-11. Kuchta and Iwata cannot render the amended claims 2-11 obvious. Withdrawal of Section 103 rejections on claims 1-11 is respectfully requested.

Claims 12 and 26 are similarly amended as claim 1, and also cannot be rendered obvious using the same arguments as discussed above. Withdrawal of Section 103 rejections on claims 12-17 and 26-28 is respectfully requested.

New claims 33 and 34 are supported by Figure 5 (among other sections of the application). Regarding claim 33, a first image print can be printed in the first image format defined by the first printable image portion (520 plus 540), wherein the first image print comprises an first image portion (540) unprintable by the second image format. Regarding claim 34, a second image print can be printed in the second image format defined by the second printable image portion (520 plus 530), wherein the second image print comprises an second image portion (530) unprintable by the first image format.

CONCLUSION

Applicants believe that the above discussion is fully responsive to all grounds of rejection set for the in the Office Action.

If for any reasons the Examiner believes a telephone conference would in any way expedite resolution of the issues raised in this office action, the Examiner is invited to telephone the undersigned at 650-610-3522.

Respectfully submitted,

Date: October 23, 2008 /Xin Wen/.

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